SOLICITATION NO. W911WN-05-B-0002

FABRICATION OF EMERGENCY BULKHEADS EMSWORTH LOCKS AND DAM PENNSYLVANIA

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NUMBER 3

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT				1. CONTRACT ID CODE		PAGE OF PAGES
2. AMENDMENT/MODIFICATION NO.		CTIVE DATE	4. REQUISITION/PURCHASE RI	EQ. NO.	5. PROJECT N	O. (If applicable)
0003	0	6/30/05	W81ET4-5119-3	767		- (// /
6. ISSUED BY CODE		0/30/03	7. ADMINISTERED BY (If other		CODE	
US ARMY ENGR DISTRICT PGH			US ARMY ENGR DIST			
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1000 LIBERTY AVENUE 1000 LIBERTY						
PITTSBURGH PA 15222-4186			PITTSBURGH PA 152	222-4186		
George L. Kusko BR-C (412)395-						
8. NAME AND ADDRESS OF CONTRACTOR (No., street, or	county, Sta	te and ZIP code)	(X) 9A. AMENDME	ENT OF SOLICIT	ATION NO.
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			7.		-05-B-000	12
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					/ 01 / 05 ATION OF CON	TPACT/OPDEP
				NO.	ATION OF CON	TRACI/ORDER
				10B. DATED	(SEE ITEM 13)	
CODE	FACILIT	Y CODE				
			MENTS OF SOLICITATIONS			
The above numbered solicitation is amended as set f						s not extended.
Offers must acknowledge receipt of this amendment pri		•		•	-	
(a) By completing Items 8 and 15, and returning 1 submitted; or (c) By separate letter or telegram which in	copies	of the amendment;	(b) By acknowledging receipt	of this amendmen	t on each copy	of the offer
MENT TO BE RECEIVED AT THE PLACE DESIGNAT	ED FOR T	THE RECEIPT OF C	DEFERS PRIOR TO THE HOL	IR AND DATE SP	ECIFIED MAY	RESULT
IN REJECTION OF YOUR OFFER. If by virtue of this a	amendmer	nt you desire to char	nge an offer already submitted	, such change may	y be made by t	elegram or
letter, provided each telegram or letter makes reference		icitation and this am	endment, and is received prior	to the opening ho	our and date sp	ecified.
12. ACCOUNTING AND APPROPRIATION DATA (If require	ed)					
			CATIONS OF CONTRA		3,	
			R NO. AS DESCRIBED HANGES SET FORTH IN ITEM 14.		CON	
(X) A. THIS CHANGE ORDER IS ISSUED PURSUANT TO TRACT ORDER NO. IN ITEM 10A.): (Spe	city authority) THE CF	IANGES SET FORTH IN ITEM 14	ARE MADE IN THE C	CON-	
B. THE ABOVE NUMBERED CONTRACT/ORDER IS I appropriation date, etc.) SET FORTH IN ITEM 14, I				uch as changes in pa	aying office,	
C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED			* *			
D. OTHER (Specify type of modification and authority	ty)					
E. IMPORTANT: Contractor is not,	is req	uired to sign this do	cument and return	copies to the is	ssuing office.	
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14. DESCRIPTION OF AMENDMENT/MODIFICATION (Org	ganizea by	UCF section neadings	, including solicitation/contract sul	oject matter where te	easible.)	
		SEE ATTACHI	≝D			
Except as provided herein, all terms and conditions of the document and effect.	nent referen	ced in Item 9A or 10A,	as heretofore changed, remains un	changed and in full for	orce	
15A. NAME AND TITLE OF SIGNER (Type or print)			16A. NAME AND TITLE OF CON	TRACTING OFFICER	R (Type or p	rint)
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED	16B. UNITED STATES OF AMER	IICA		16C. DATE SIGNED
			BY			
(Signature of person authorized to sign)			(Signature of Con	tracting Officer)		

The following changes are made to the Specifications for Fabrication of Emergency Bulkheads, Ohio River, Emsworth Locks and Dam, Pennsylvania:

Standard Form 33, Solicitation, Offer and Award

<u>Block 9.</u> Change the bid opening date from "1 JUL 2005" to <u>11 JUL 2005.</u> The bid opening time remains at 11:00 a.m.

Section H, Special Contract Requirements

Page H-3, Paragraph 52.232-5001, Continuing Contracts

<u>Subparagraph (b).</u> In the first line, change the amount of "\$100,000.00" to read \$300,000.00.

Section 05055, Metalwork Fabrication, Machine Work, Miscellaneous Provisions

Page 05055-08. Delete this page in its entirety and substitute the attached revised Page 05055-08.

Section 11295, Bulkheads and Accessories

<u>Delete Pages 11295-07 through 11295-09 in their entirety and substitute the attached revised Pages 11295-07 through 11295-09.</u>

IN ORDER FOR BIDS TO BE CONSIDERED RESPONSIVE, ALL AMENDMENTS MUST BE ACKNOWLEDGED.

Any Bid already received will be returned unopened upon e-mail request to George.L.Kusko@usace.army.mil.

these specifications for previous qualification tests shall establish a welding procedure as prequalified. For welding procedures qualified by tests, the test welding and specimen testing must be witnessed and the test report document signed by the Contracting Officer. Approval of any welding procedure will not relieve the Contractor of the responsibility for producing a finished structure meeting all requirements of these specifications. The Contractor will be directed or authorized to make any changes in previously approved welding procedures that are deemed necessary or desirable by the Contractor Officer. The Contractor shall submit a complete schedule of welding procedures for each stainless steel structure to be welded. The schedule shall conform to the requirements specified in the provisions AWS D1.6. The schedule shall provide detailed procedure specifications and tables or diagrams showing the procedures to be used for each required joint. Welding procedures must include filler metal, preheat, interpass temperature and stress-relief heat treatment requirements. Each welding procedure shall be clearly identified as being prequalified or required to be qualified by tests. Welding procedures must show types and locations of welds designated or in the specifications to receive nondestructive examination.

b. Welding Process - Welding of structural stainless steel shall be by an electric arc welding process using a method which excludes the atmosphere from the molten metal and shall conform to the applicable provisions of AWS D1.6. Welding shall be such as to minimize residual stresses, distortion and shrinkage.

c. Welding Technique

- (1) Filler Metal The electrode, electrode-flux combination and grade of weld metal shall conform to the appropriate AWS specification for the base metal and welding process being used or shall be as shown where a specific choice of AWS specification allowables is required. The AWS designation of the electrodes to be used shall be included in the schedule of welding procedures. A controlled temperature storage oven shall be used at the job site as prescribed by AWS D1.6 to maintain low moisture of low hydrogen electrodes.
- (2) Preheat and Interpass Temperature Preheating shall be performed as required by AWS D1.6 or as otherwise specified except that the temperature of the base metal shall be at least 70 degrees F. The weldments to be preheated shall be slowly and uniformly heated by approved means to the prescribed temperature, held at that temperature until the welding is completed and then permitted to cool slowly in still air.
- (3) Stress-Relief Heat Treatment Where stress relief heat treatment is specified or shown, it shall be in accordance with the requirements of AWS D1.6 unless otherwise authorized or directed.
- d. Workmanship Workmanship for welding shall be in accordance with AWS D1.6 and other applicable requirements of these specifications.
 - (1) Preparation of Base Metal Prior to welding the Contractor shall inspect surfaces to be welded to assure compliance with AWS D1.6.

Fabrication of Emergency Bulkheads Emsworth Dam, Ohio River

- (2) Temporary Welds Temporary welds required for fabrication and erection shall be made under the controlled conditions prescribed for permanent work. Temporary welds shall be made by welders qualified for permanent work as specified in these specifications. Preheating for temporary welds shall be as required by AWS D1.6 for permanent welds except that the minimum temperature shall be 120 degrees F in any case. In making temporary welds arcs shall not be struck in other than weld locations. Each temporary weld shall be removed and ground flush with adjacent surfaces after serving its purpose.
- (3) Tack Welds Tacks welds that are to be incorporated into the permanent work shall be subject to the same quality requirements as the permanent welds and shall be cleaned and thoroughly fused with permanent welds. Preheating shall be performed as specified above for temporary welds. Multiple-pass tack welds shall have cascaded ends. Defective tack welds shall be removed before permanent welding.

0.1 Welding of Aluminum

Welding of aluminum shall conform to AA ADM 1 or AWS D1.2, Sections 1 through 7, 9 and 10. The welding process and welding operators shall be prequalified as required by AWS D1.2, Section 5 or AA ADM 1, Subsection 7.2.4 in accordance with the methods described in ASME BPVC SEC IX, Section IX. A certified report giving the results of the qualifying tests shall be furnished for approval. A complete schedule of the welding process for each aluminum fabrication to be welded shall be furnished for approval.

2.2.3 Bolted Connections

0.2 Bolted Structural Stainless Steel Connections

Bolts, nuts and washers shall be of the type specified or indicated. All nuts shall be equipped with washers. Beveled washers shall be used where bearing faces have a slope of more than 1:20 with respect to a plane normal to the bolt axis.

- a. Bolt Holes Bolt holes shall be accurately located, smooth, perpendicular to the member and cylindrical.
 - (1) Holes for regular bolts shall be drilled or subdrilled and reamed in the shop and shall not be more than $1/64\underline{16}$ inch larger than the diameter of the bolt.
 - (2) Holes for fitted bolts shall be match-reamed or drilled in the shop. Burrs resulting from reaming shall be removed. The threads of bolts shall be entirely outside of the holes. The body diameter of bolts shall have tolerances as recommended by ASME B4.1 for the class of fit specified. Fitted bolts shall be fitted in reamed holes by selective assembly to provide an LN-2 fit.

2.2.3.2 Bolted Aluminum Connections

Punching, drilling, reaming and bolting for bolted aluminum connections shall conform to the requirements of AA ADM 1, Section 6, except holes shall be drilled or match-reamed in the shop. Bolts, Nuts & Washers shall conform to requirements of AA ADM 1, and Section 05502 METALS: MISCELLANEOUS, STANDARD ARTICLES, SHOP FABRICATED ITEMS.

MACHINE WORK, MISCELLANEOUS PROVISIONS. Components shall be shop-fabricated of the materials specified and shown on the drawings. Dimensional tolerances shall be as specified and shown on the drawings. Splices, if required, shall occur only where shown on the drawings, shop drawings, or approved by the Contracting Officer. The shop drawings provided to the Contractor will indicate revised splice locations such that member lengths will not exceed 25 feet. The entire bulkhead shall be shop assembled and, if required, disassembled at splice locations for field reassembly. Bolt holes shall be bored in components after clamping and straightening are completed. Brackets and other components requiring straightening shall be straightened by methods which will not damage the material. Bronze bushings shall be press-fitted with supporting components. Bolt connections, lugs, clips, or other pick-up assembly devices shall be provided for components as shown and required for proper assembly and installation. Provisions shall be made for the installation of appurtenances as required.

0.1 Welding

Welding shall conform with the requirements specified herein, and in Section 05055 METALWORK FABRICATION, MACHINE WORK, MISCELLANEOUS PROVISIONS. Welds shall only be where and of the type shown on the contract drawings and approved detail drawings. Nondestructive examination is required on the major shop welds of the types as follows:

a. One hundred percent (100%) visual

0.2 Bolted Connections

Bolted connections shall conform with the requirements specified in Section 05055 METALWORK FABRICATION, MACHINE WORK, MISCELLANEOUS PROVISIONS.

0.3 Machine Work

Machine work shall conform with the requirements specified in Section 05055 METALWORK FABRICATION, MACHINE WORK, MISCELLANEOUS PROVISIONS.

0.4 Miscellaneous Provisions

Miscellaneous provisions for fabrication shall conform with the requirements specified herein and in Section 05055 METALWORK FABRICATION, MACHINE WORK, MISCELLANEOUS PROVISIONS.

0.5 Fabrications

0.5.1 Bulkheads

Bulkheads shall be of bolted fabrication as shown on the drawings. Structural fabrication shall conform to the requirements as shown and specified herein and in Section 05055 METALWORK FABRICATION, MACHINE WORK, MISCELLANEOUS PROVISIONS. Dimensional tolerances shall be as specified and as shown. Splices shall occur only where shown or approved by the Contracting Officer. Bulkhead units shall be shop-fabrication in one piece. The Contractor shall obtain and submit a certified Weight Certificate for each of the completely fabricated bulkheads prior to any transportation or shipping for delivery to the project site. Fabrication in separate segments without shop assembly will not be permitted. The Contractor shall prepare and execute a bolting sequence for the shop bolting of the bulkheads, which, in conjunction with the joint bolting

procedures and overall fabrication methods, will control distortion to produce a completed assembly meeting the quality requirements and tolerances specified. Bulkheads shall be provided with seal assemblies and other appurtenant items as shown on the drawings. The Contractor shall lift each of the completely fabricated bulkheads from the lifting assembly in the shop to establish the center of gravity of the bulkhead. When lifted #the bulkhead shall not vary from plumb by more than 1/8" over the height of the bulkhead. The Contractor shall fasten additional aluminum material (ballast) as necessary to achieve the desired center of gravity within tolerances specified. Weight Certificate shall be obtained after the addition of any required ballast.

0.5.2 Bulkhead Skin Plates

The outside surfaces of skin plates bolted to framing elements shall not vary from a true plane by more than 1/16 inch. Splices in skin plates shall be located only where shown. The overall width and height of the fabricated bulkhead shall not vary from the respective dimensions shown by more than 1/16 inch.

0.5.3 Bulkhead Frame and Guides

Exposed unmachined surfaces of bulkhead frames shall match at joints between component parts, shall not depart from true planes shown by more than 1/16 inch, and shall be free of offsets or irregularities greater than 1/16 inch. Allowable offsets or irregularities less than 1/16 inch shall be ground to a bevel of not greater than one on twenty four. Installation shall maintain surface straightness to within 1/8 inch overall in both plan dimensions.

0.6 Shop Assembly

Shop assembly requirements for bulkheads shall be as shown on the drawings and specified herein and in Section 05055 METALWORK FABRICATION, MACHINE WORK, MISCELLANEOUS PROVISIONS. Rubber seals shall be fitted and drilled to match the seal clamping bars, match-marked and then removed for shipment. Shop assembly shall include the attachment of all accessories to the each bulkhead. If the bulkhead is out of plumb when lifted by more than 1/816 inchin the total length in a vertical plane in the upstream-downstream direction, or by more than 1/816 inch in the total width in a vertical plane perpendicular to the vertical plane in the upstream-downstream direction, it shall be balanced by counterweighting or some other method as approved at the Contractor's expense. Shop assembly and disassembly work shall be performed in the presence of the Contracting Officer unless otherwise waived in writing by the Contracting Officer. The presence of the Contracting Officer during assembly or disassembly will not relieve the Contractor of any responsibility under this contract.

0.6.1 Wheel Assemblies

The bulkhead wheel assemblies shall be products of a manufacturer regularly engaged in the manufacture of such products. Each wheel assembly shall be provided complete with wheel, shaft, roller bearing, lock washer, lock nut, bearing cover, seal housing, grease seal, seal retainer, shaft lock plate, lubrication fittings, fasteners, and other accessories as required for complete and proper installation. Wheel diameter and thickness shall not be changed from that shown. The dimensions and tolerances of other components may be changed as required for compatibility with the manufacturer's product.

0.6.2 Seal Assemblies

The bulkhead seal assemblies shall consist of rubber seals, stainless steel retainer and spacer bars, and fasteners. Rubber seals shall be continuous over the full length. Seals shall be accurately fitted and drilled for proper installation. Bolt holes shall be drilled in the rubber seals by using prepared templates or the retainer bars as templates. Splices in seals shall be fully molded, develop a minimum tensile strength of 50 percent of the unspliced seal, and occur only at locations shown. All vulcanizing of splices shall be done in the shop. The vulcanized splices between molded corners and straight lengths shall be located as close to the corners as practicable. Splices shall be on a 45 degree bevel related to the "thickness" of the seal. The surfaces of finished splices shall be smooth and free of irregularities. Stainless steeel retainer bars shall be field-spliced only where shown and machine finished after splicing.

0.7 TESTS, INSPECTIONS, AND VERIFICATIONS

Tests, inspections, and verifications for materials shall conform to the requirements specified herein and in Section 05055 METALWORK FABRICATION, MACHINE WORK, AND MISCELLANEOUS PROVISIONS. Shop assembled components shall be inspected for accurate fit and compliance with dimensional tolerances. Sealing, guiding, and connecting surfaces shall be inspected to determine if their planes are true, parallel, and in uniform contact with opposing surfaces.

0.7.1 Acceptance Trial Operation

The Contracting Officer will examine the bulkheads for final acceptance. The bulkheads will be examined first to determine whether or not the workmanship conforms to the specification requirements. Final acceptance of the bulkheads will not be made until the Government has operated the bulkheads in service. The Government will operate the bulkheads from the fully-raised to the fully-lowered position a sufficient number of times in different bays as selected by the Contracting Officer to demonstrate to the Contracting Officer's satisfaction that there is no binding, and that sealing surfaces do not leak. The workmanship shall be such that the bulkheads in the lowered position will form a watertight barrier across the opening. Required repairs or replacements to correct defects, as determined by the Contracting Officer, shall be made at no cost to the Government. The trial operation shall be repeated after defects are corrected.

0.8 PROTECTION OF FINISHED WORK

Protection of finished work shall conform to the requirements of Section 05055 METALWORK FABRICATION, MACHINE WORK, MISCELLANEOUS PROVISIONS.

-- End of Section --